



## METSENS550

Compact Weather Sensor for Temperature, RH, Barometric Pressure, and Wind with Precipitation Connector and Compass



## Measures 5 Common Meteorological Parameters

Includes a precipitation connector and compass

### Overview

The MetSENS550 compact weather sensor measures wind speed and direction via an ultrasonic sensor, as well as air temperature, relative humidity, and barometric pressure, in a single, combined instrument mounted inside three double-louvered, naturally aspirated radiation shields with no moving parts. An integrated side connector allows users to connect a tipping bucket rain gauge. An integrated electronic compass provides apparent wind measurements. WMO average wind

speed and direction and gust, temperature, relative humidity, barometric pressure, absolute humidity, air density, wet bulb temperature, rainfall total, and rainfall intensity data are provided. The MetSENS550 is compatible and easily integrated with the [MeteoPV Solar Resource Platform](#) and any Campbell Scientific data logger using SDI-12, RS-485, ModbusRS-485, or NMEA RS-232.

### Benefits and Features

- › Quality measurements
- › Fast and simple to install
- › Compact, integrated design
- › Lightweight and robust
- › Two-year warranty

### Specifications

Sampling Rate	1 Hz
Digital Communication Modes	Serial RS-232, RS-422, RS-485, SDI-12, NMEA, Modbus, ASCII
IP Rating	66
Compliance	CE, RoHS
Operating Temperature Range	-40° to +70°C
Operating Voltage	5 to 30 Vdc

Typical Current Drain @ 12 Vdc	› 25 mA (continuous high mode)
	› 0.7 mA (eco-power mode; 1 hour polled)

Weight	0.7 kg (1.5 lb)
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#### Air Temperature Measurement

Measurement Range	-40° to +70°C
Resolution	0.1°C
Accuracy	±0.3°C (@ 20°C)



### Relative Humidity Measurement

Measurement Range	0 to 100%
Resolution	0.1
Accuracy	±2% @ 20°C (10 to 90% RH)

### Barometric Pressure Measurement

Measurement Range	300 to 1100 hPa
Resolution	0.1 hPa
Accuracy	±0.5 hPa (@ 25°C)

### Wind Speed Measurement

Measurement Range	0.01 to 60 m s <sup>-1</sup>
Accuracy	› ±3% (up to 40 m s <sup>-1</sup> ) › ±5% (up to 60 m s <sup>-1</sup> )
Resolution	0.01 m s <sup>-1</sup>

Starting Threshold 0.01 m s<sup>-1</sup>

### Wind Direction Measurement

Measurement Range	0° to 359°
Accuracy	› ±3° (up to 40 m s <sup>-1</sup> ) › ±5° (up to 60 m s <sup>-1</sup> )
Resolution	1°

### Precipitation Input

Measurement Input Type	Triggering
Range	0 to 1000 mm h <sup>-1</sup>
Precipitation Resolution	From 0.01 mm
Input to MetSENS550	Contact closure via an MB male, 4-pin connector. (User-supplied 20 m cable or mating female connector required.)

For comprehensive details, visit: [www.campbellsci.com/metsens550](http://www.campbellsci.com/metsens550) 



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